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3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
			EXAMINER RIVELL, JOHN A	
			ART UNIT 3753	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 09/986,346	<b>Applicant(s)</b> BOWERS, JOHN LAWRENCE
	<b>Examiner</b> JOHN RIVELL	<b>Art Unit</b> 3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

#### Status

1) Responsive to communication(s) filed on 3/9/09 (amendment).

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) See Continuation Sheet is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 16,17,19-25,89,90 and 92-94 is/are allowed.

6) Claim(s) See Continuation Sheet is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims pending in the application are 16,17,19-25,41,43-47,49-54,64,66-70,72-79,83-96,100-104,108-112,114-120,122-124 and 126-129.

Continuation of Disposition of Claims: Claims rejected are 41,43-47,49-54,64,66-70,72-79,83-88,91,95,96,100-104,108-112,114-120,122-124 and 126-129.

**DETAILED ACTION**

By amendments filed in this application, claims 1-15, 18, 26-40, 42, 48, 55-63, 65, 71, 80-82, 97-99, 105-107, 113, 121 and 125 have been canceled. Claims 16, 17, 19-25, 41, 43-47, 49-54, 64, 66-70, 72-79, 83-96, 100-104, 108-112, 114-120, 122-124, and 126-129 are pending.

***Recapture***

Claims 41, 43, 46, 64, 66 and 69 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Pannu v. Storz Instruments Inc.*, 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001); *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp. v. United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to claim subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the broader scope of claim subject matter surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

For example, during prosecution of the original patent application (SN 08/686839) which matured into the Patent under Reissue here, prosecution of the

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application proceeded to Final rejection on April 29, 1997. In response thereto, applicant submitted by facsimile dated May 20, 1997, a proposed Draft of then claim 12, which did not include the above noted language. Two days later, on May 22, 1997 a second facsimile of Draft claim 12 was submitted that did include the above noted language. This second Draft apparently was agreed upon by reason that in a formal amendment dated June 12, 1997 in an effort to overcome prior art applied in the final rejection dated April 29, 1997, and further modifying the first Draft version of claim 12, applicant specifically amended then claim 12 by the specific addition of (added material indicated by underlining in the original) the following:

"said root end of the cantilevered flexible flap and the respective sealing surface that contacts the cantilevered flexible flap at its said root end are curved in a direction transverse of said longitudinal axis, said transverse curvature biases the flap and maintains it substantially in contact..."

which includes the language applicant now requests to remove. On page 6 of the accompanying remarks concerning the rejection of claim 12 and how as amended the claim does not read on the applied reference applicant states:

"...independent claims 12 and 13 have been drafted to more fully define the form of, and relationship between, the valve flap and the cooperating valve seat."

After further changes to claim 12, by amendment dated June 25, 1997, directed to language not germane to the concept of having the "root end of the cantilevered flexible flap and the respective sealing surface... curved" in the transverse direction, claim 12 matured into claim 1 of the Patent sought to be Reissued. Thus the limitations

added to the claims and/or argued about to make the claim patentable over the applied prior art effectively "generates" the surrender of the claimed subject matter.

To now allege in the reissue declaration that this claimed subject matter is an "error" under reissue is an improper attempt at recapture of previously surrendered subject matter.

***Response to Argument***

It is clear that the addition of language referring to the "transverse curvature" of both the "flexible valve element" and the "respective sealing surface that contacts the cantilevered flexible flap at its root end" was relied on during prosecution of the original application for allowability. Accordingly, claims in this reissue application that now omit limitations added and/or argued to overcome the prior art rejection in the original prosecution are barred by the recapture rule. A thorough review of the above noted claims reveals that these claims now do not include language germane to the transverse curvature of the respective sealing surface that contacts the flap root end nor do those claims include language relative to how the transverse curvature of the flap may be achieved. It is well understood that, under current procedures, applicant may broaden the claim language germane to the allowed and/or argued feature of the patented claims. However, applicant is barred by the recapture rule from removing all language germane to the allowed and/or argued features.

It is agreed that some claims in this Reissue application are in fact broader than the patented claims in a manner directly pertinent to the subject matter surrendered during prosecution of the parent application. It is further agreed that:

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"In determining whether the applicant surrendered the particular subject matter that would constitute a recapture estoppel bar, 'we look to the prosecution history for arguments and changes to the claims made in an effort to overcome a prior art rejection.' In order to rely on an argument to establish recapture estoppel, there be a 'clear and unmistakable surrender.' If there is no clear and unmistakable surrender by argument, there then must be evidence of a 'deliberate withdrawal or amendment in order to secure the patent'. The recapture rule cannot apply when there is no evidence that the amendment of the "originally filed claims was in any sense an admission that the scope of the claim was in not in fact patentable" (citing 3 Hestor Indus. 46 USPQ2d at 1648 (emphasis theirs) and Medtronic Inc. v. Guidant Corp., 465 F.3d 1360, 80 USPQ2d 1558, 1568 (Fed. Cir. 2006)).

As further evidence, applicant further argues that the prosecution history repeated by the Examiner above presents no arguments directed to the curved valve seat surface and that, due to a lack of arguments therefore, excludes this language from consideration in determining Recapture.

M.P.E.P. §1412.02(I)(B)(2)(B Example 2) demonstrates an example of application prosecution history in which amendments were made to the claim and included no arguments in support of the added claim limitations. The section states in pertinent part:

"The limitation omitted in the reissue claim(s) was added in the original application claims for the purpose of making the application claims allowable over a rejection or objection made in the application. Even though applicant made no argument on the record that the limitation was added to obviate the rejection, the nature of the addition to the claim can show that the limitation was added in direct reply to the rejection. This too will establish the omitted limitation as relating to subject matter previously surrendered."

Applicants sole reliance on the lack of an argument in support of claim language directed to the curved seat surface, subverts the actual acts that took place during prosecution of the Patent application. FACT: Claim 12 of the application was indeed

rejected on grounds of prior art. FACT: Applicant did submit a formal amendment to 12 claim which, after further change not related to the allowable feature, matured into claim 1 of the Patent sought to be Reissued. Based on these acts, it is clear that applicant submitted those changes in order to overcome the applied prior art and to secure a Patent. The arguments here that rely solely on the lack of an arguments during previous prosecution portend a reliance on the above cited court precedent (*Hestor Indus.; Medtronic Inc.*) as requiring both a claim amendment and an argument therefore. However, as relied on by applicant, "if there is no clear and unmistakable surrender by argument, then there must be evidence of a 'deliberate withdrawal or amendment in order to secure the patent'". Amendments to a rejected claim in the absence of arguments in support therefore, resulting in maturity of that claim into a Patent is "evidence of a 'deliberate withdrawal or amendment in order to secure the patent'".

Applicant further argues that:

"In the present reissue application, the applicant has not simply removed the language that had been previously added to the claim to prosecute a claim having the original claim scope. What applicant has done is remove the language pertinent to the curved seal surface limitation and added additional language regarding how the flap curvature may be achieved. It was the transverse curvature of the flap that the applicant argued as a distinguishing feature during prosecution of the original patent application claims. Applicant's newly-added language is germane to the language of the prior rejection since the added language is pertinent to the transverse curvature of the flap and its mounting to the valve seat."

Consider claim 41 for example. Claim 41 clearly lacks any recitation concerning a "curved seal surface" germane to the subject matter added during Patent prosecution.

Claim 41, as it relates to this subject matter is thus as broad as finally rejected claim 12 of the Patent application. The recitation in claim 41 of "maximum transverse curvature at the location where the flap is mounted to the valve seat", contrary to the immediately above noted arguments of applicants, is not seen as including any "additional language regarding how the flap curvature may be achieved". This aspect of claim 41 is as broad as, if not broader, than finally rejected claim 12 of the Patent application. These same comments apply to claim 64. Claim 64 clearly lacks any recitation concerning a "curved seal surface" germane to the subject matter added during Patent prosecution. Claim 64, as it relates to this subject matter is thus as broad as finally rejected claim 12 of the Patent application. The recitation in claim 64 of "the flexible flap exhibits a curvature in a direction transverse to the flexible flap's longitudinal dimension... wherein the flexible flap has maximum transverse curvature at the root end location where the flexible flap is mounted to the seat" contrary to the immediately above noted arguments of applicants, is not seen as including any "additional language regarding how the flap curvature may be achieved". This aspect of claim 64 is as broad as, if not broader, than finally rejected claim 12 of the Patent application.

In response to applicants reliance on *Ex parte Eggert*, 67 USPQ2d 1713, 1717 (BPAI 2003) it is understood that *Eggert* allows in Reissue applications for the broadening of claim language germane to the limitations that were added/argued during prosecution of the Patent application to overcome an art rejection. *Eggert* does not permit the complete removal of such language. In the claims listed above subject to rejection under Recapture, the claims eliminate language germane to the allowed

concept concerning the transverse curvature of the sealing surface and include language relating to the valve element having a transverse curvature. Merely reciting the flap has a transverse curvature is not considered broadening, under *Eggert*, of how the transverse curvature of the flap is achieved, especially since the Patent discloses two distinct embodiments of how transverse curvature is achieved. As disclosed in the original Patent, one embodiment is disclosed in which the valve element itself may be initially constructed to include the transverse curvature such that the transverse curvature is not created by the mounting of valve element to the curved valve seat. Another embodiment, which matured into the Patent sought to be Reissued concerned the transverse curvature to be imparted or created by the mounting of valve element to the curved valve seat.

**New Matter**

Claims 47, 49-54, 64, 66-70, 72-79, 83-88, 95-96, 100-104, 108-120 and 122-129 are rejected under 35 U.S.C. 251 as being based upon new matter added to the patent for which reissue is sought. The added material which is not supported by the prior patent is as follows:

In claim 47, lines 14-16 recite "the stationary portion of the flexible flap being held in a stationary position in contact with a portion of the seal ridge such that the stationary segment of the peripheral edge remains stationary during exhalation". Lines 21-23 then recite "the mounting of the flap causing the stationary portion of the flap to be pressed towards the seal ridge such that at least a portion of the stationary portion resides in non-alignment with the seal surface when viewing the valve in a longitudinal section".

Since "the stationary portion (is)... held in a stationary position in contact with... the seal ridge" as recited in lines 14-16 it is not understood how the mounting of the flap in a manner which presses the flap "towards the seal ridge (causes) a portion of the stationary portion (to) reside in non-alignment with the seal surface" as recited in the claim. That is, the claim requires the stationary portion to be both "held in a stationary position with a portion of the seal ridge" (lines 14-16) as well as having "a portion of the stationary portion reside in non alignment with the seal surface" (lines 21-23). When the stationary portion is "held" in position, there is no explanation of how a portion of the stationary portion is also not held so as to be in non alignment. As there is no basis for this limitation in the original patent this is considered to be new matter.

In response to this position of the Examiner, applicant argues that figure 4 of the instant application demonstrates the "portion of the stationary portion of the flap that resides in non-alignment with the seal surface". It is not disputed that figure 4 demonstrates this feature. What is disputed in the claim language that requires two different things of the same part. That is, the claim language requires the stationary portion to be both held in position in contact with a portion of the seal ridge (which terminates in the "seal surface" clm 47, line 5) and include a portion to be in non alignment with the portion of the seal surface.

In claim 64, lines 4-5 recites "the flexible flap being non-centrally mounted to the valve seat relative to the orifice at the root end". Since the "orifice" of the valve seat has both length and width, any position that is not on the center of the orifice is covered by the recitation "non-centrally". The flexible flap, as disclosed in the Patent, is mounted

along an edge of the flexible flap. While the recitation "non-centrally" encompasses the embodiment in which the flap is mounted along the edge in cantilever fashion, it also encompasses embodiments in which the valve is mounted not at the center of the valve and at the edge of the flap as recited in the claim. For example, an embodiment reading on this limitation can encompass mounting of the flexible flap along the seal ridge, at any location(s) not at the longitudinal center of the flap. Such embodiments now covered by the scope of the recitation "non-centrally" are not disclosed in the Patent and are considered to be new matter.

In response, applicant argues that the addition of the recitation "at the root end" eliminates any issue concerning the enlargement of claim scope beyond that of the original Patent. As described above, this does not eliminate these issues.

In claim 70, lines 12-13 recite "the flexible flap is mounted off-center relative to the longitudinal axis of the flap towards the stationary segment of the flap's peripheral edge". The flexible flap, as disclosed in the Patent, is mounted along an edge of the flexible flap. While the recitation "off center" may encompass the embodiment in which the flap is mounted along the edge in cantilever fashion, it also encompasses embodiments in which the valve is mounted not at the center of the valve in a direction "towards" the edge of the flap as recited. For example, an embodiment reading on this limitation can encompass mounting of the flexible flap at any location(s) not at the longitudinal center of the flap so long as the mounting location(s) is in the direction "towards" the stationary segment from the center of the flap. Such embodiments now

covered by the scope of the recitation "off center" are not disclosed in the Patent and are considered to be new matter.

Further in claim 70, lines 15-18 recite "the transverse curvature being accomplished at least in part by having a member from the valve cover press against the flap to create sufficient curvature in the flap at a point when the member contacts the flap to cause at least a part of the stationary portion to reside in non alignment with the seal surface". As disclosed in the Patent, the only "member" which extends "from the cover (to) press against the flap to create sufficient curvature" is profiled block 15. See the Patent at column 3, lines 25-29. At the location of profiled block 15 the flexible flap cannot be located in "non alignment with the seal surface" 9A. The only part of the flexible flap that resides in non alignment with the seal surface as a result of a member contacting the flap is at the location of profiled block 16. Block 15 and block 16 are at two distinct locations. It would appear that the claim is attempting to require the same element to perform different things within the structure of the valve device for which there is no support in the original Patent and is thus considered to be new matter.

In claim 86, lines 15-16 recite "a profiled block that engages the flexible flap... to press the flap towards the valve seat, wherein the flexible flap exhibits a curvature at least in a direction transverse to the longitudinal axis ...". The phrase "at least" enlarges the scope of the claim to include curvature in directions not transverse to the longitudinal axis such as along askew angles from the longitudinal axis which is outside the scope of the original patent. As there is no basis for this limitation in the original patent this is considered to be new matter.

In response, applicants argue that the Patent "specification indicates that the curvature may be in the transverse direction and in the longitudinal direction. As such, there will also be inherent curvatures and angles therebetween."

This is unconvincing in that arguments in favor of embodiments of the invention that are encompassed by the claim language do not serve to convert embodiments which are not disclosed to embodiments which are disclosed. So long as there embodiments of the claimed invention not encompassed by the original Patent, any such embodiment encompassed by the added claim language is considered to be new matter relative to the Patent.

In claim 92, lines 20-23 recite "the fixed curvature being accomplished at least in part by exerting a force on the flexible flap to move the flap towards the valve seat such that the flap, at the location where the force is exerted, is non-aligned with the seal surface". The only element which exerts a force to move the flap towards the seat such that at the location of the exerted force the flap is "non-aligned" with the seal surface is block 16. Block 16 does not accomplish the curvature, it accentuates the curvature already imparted by block 15 and seal ridge 9A. Secondly the recitation "at least in part" encompasses embodiments of the invention in which the fixed curvature is "accomplished" by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent are considered new matter.

In claim 95, lines 17-20 recite "... the flexible flap comprises a fixed curvature in a direction transverse to the longitudinal axis, the fixed curvature resulting at least in part from a force being applied to the flap at a position proximate the root end and between

the peripheral side edges, the applied force moving the flap upstream at the applied position and thus at least partially imparting the curvature". The only element which exerts a force to move the flap "upstream" is block 16. While the block 16 may "at least in part" accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation "at least in part" encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

In response, applicant argues that "there are additional features of the valve that also help or assist in maintaining the flap in a curved position (such as) seal surfaces 9a, 9b, 9c". This is unpersuasive in that the seal surfaces 9a, 9b, 9c, which serve to impart, help and/or assist in maintaining the longitudinal curvature of the flap, do not help or assist in maintaining the "fixed curvature a direction transverse to the longitudinal direction" as claimed.

In claim 104, lines 17-21 recite "the flexible flap comprises a fixed curvature in a direction transverse to the longitudinal axis, the fixed curvature resulting at least in part from a force being applied to the flap at a position proximate the root end and between the peripheral side edges, the applied force moving the flap upstream at the applied position and thus at least partially imparting the curvature". The only element which exerts a force to move the flap "upstream" is block 16. While the block 16 may "at least in part" accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation "at least in part" encompasses embodiments of the invention in which the

fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

In claim 111, lines 20-24 recite "the flexible flap comprises a fixed curvature in a direction transverse to the longitudinal axis, the fixed curvature at least partially resulting from a force being applied to the flap at a position proximate the root end and between the peripheral side edges, the applied force moving the flap upstream at the applied position and thus at least partially imparting the curvature". The only element which exerts a force to move the flap "upstream" is block 16. While the block 16 may "at least partially" accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation "at least partially" encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

In claim 120, lines 27-28 recite "the applied force moving the flap upstream at the exerted position and thus at least partially imparting the curvature. While the block 16 may "at least partially" accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation "at least partially" encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

In response, applicant argues that "there are other components other than the block that contribute to the force and the resultant flap curvature (such as) the seal surfaces and their spatial relationship to the block also contribute to the flap curvature." This is unconvincing in that the seal surfaces 9a, 9b, 9c, which serve to impart, help and/or assist in maintaining the longitudinal curvature of the flap, do not help or assist in maintaining the "fixed curvature a direction transverse to the longitudinal direction" as claimed.

In claim 122, lines 18-19 recite "the flexible flap is mounted on the valve seat non-centrally relative to the valve seat orifice and the longitudinal direction". Since the mounting elements at block 15 and seal ridge 9A span the width of the flap, which flap passes center lines of the seat orifice, it is not clear as to how the flap is mounted "off center" as recited. Further, lines 19-20 recite "there being a force exerted on the flap in an upstream direction relative to the fluid flow through the valve to at least partially impart a curvature to the flap when in a closed position". While the block 16 may "at least partially" accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation "at least partially" encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter. Additionally, lines 21-22 recite "which curvature extends at least transversely to the longitudinal dimension". The inclusion of the phrase "at least" enlarges the scope of the claim to include curvature in directions not transverse to the longitudinal axis such as along askew angles from the longitudinal axis which is outside

the scope of the original patent. As there is no basis for these limitations in the original patent this is considered to be new matter.

The remaining claims are included due to dependency.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 41, 43, 44, 46, 64, 66, 67 and 69 are rejected under 35 U.S.C. §102 (b) as being anticipated by cover (U. S. Pat. No. 2,105,183).

Regarding claim 41, the patent to Cover ('183) discloses a "filter face mask comprising: a mask body (11) adapted to fit over a nose and a mouth of a wearer (in the device of Cover ('183), although not explicitly illustrated in the figures, the mask 11 is considered to be positionable over the nose and mouth of the wearer since Pat. No. 2,105,183 is disclosed as being an improvement over a previous application, Serial No. 722,619 which matured into U.S. Pat. No. 2,112,270 of record which fully discloses that the mask 11 would be located over the nose and mouth of the wearer); and an exhalation valve (figures 3, 5 and 6) mounted to the mask body; the exhalation valve comprising only one flexible flap (read at half of the flap 23 forming one valve) and a valve seat (surface of plate 17); the flexible flap (23) being non-centrally mounted to the valve seat (at 17) relative to the orifice (at 18) and in cantilever fashion (the valve element 23 is mounted by attaching the portion at holes 24 of the valve to the plate 17

at holes 20 by pins 21. As such this mounting arrangement forms a hinge area thus effectively forming two "cantilever" type valve elements either one of which is readable on the "flap" recited herein) for movement between open and closed positions; the flexible flap (23) having a longitudinal dimension (extending from the hinge area where the "flap" is fixed to either of the "free" extremities) and a free end that rests upon the valve seat (17) when in closed position; the flexible flap (either one of the valves formed) also having a transverse curvature in a direction transverse to the flap's longitudinal dimension (as exemplified by the concavity exhibited in figure 2, extending along the plane of the hinge area. See page 1, right column, lines 28-31); the transverse curvature biasing the flexible flap to effect positioning and retention of the flexible flap in the closed position in the absence of an opening pressure differential across the flap for any orientation of the valve (as disclosed at page 2, lines 8-52 of Cover ('183)) wherein the flexible flap has maximum transverse curvature at the location where the flexible flap is mounted to the valve seat" as recited.

Regarding claim 43, in Cover ('183), the transverse curvature of the flexible flap (either one of the "flaps") progressively decreases toward the free end of the flexible flap" from the maximum at the hinge area given that the surface 17 is concave. At locations approaching the rim of the concavity the curvature will decrease to eventually meet with the plate rim.

Regarding claim 44, in Cover ('183), "the transverse curvature is imparted to the flexible flap by virtue of its mounting to the valve seat" by reason that the flap is pressed to the concave seat surface.

Regarding claim 46, in Cover ('183), "the exhalation valve is so located on the mask such that during normal head movements of a wearer, the free end of the (lower) flexible flap (of the two) is generally directed downwardly" as recited.

Regarding claim 64, the patent to Cover ('183) discloses a "filter face mask that comprises: (a) a mask body (11) adapted to fit over a nose and a mouth of a wearer (in the device of Cover ('183), although not explicitly illustrated in the figures, the mask 11 is considered to be positionable over the nose and mouth of the wearer since Pat. No. 2,105,183 is disclosed as being an improvement over a previous application, Serial No. 722,619, which matured into U.S. Pat. No. 2,112,270 of record which fully discloses that the mask 11 would be located over the nose and mouth of the wearer); and (b) an exhalation valve (figures 3, 5, and 6) mounted to the mask body, the exhalation valve comprising only one flexible flap (either one of the valves formed at each half of the flap 23 of Cover ('183)) and a valve seat (surface of plate 17), the flexible flap (either one) being non-centrally mounted to the valve seat (at 17) relative to the orifice (18) at the root end (at the area of either one of the flaps where the flap is mounted to the seat) and in cantilever fashion (the valve element 23 is mounted by attachment at holes 24 of the valve to the plate 17 at holes 20 by pins 21. As such this mounting arrangement forms a hinge area thus effectively forming two valve elements either one of which is

read as the claimed "flap") such that it has a longitudinal dimension (extending from the hinge area to the "free" extremity), (either one of) the flexible flap also having a free end (opposite the hinge area) that rests upon the valve seat (e.g. the mating surface of plate 17) when closed, the flexible flap exhibits a curvature in a direction transverse to the flexible flap's longitudinal dimension (as exemplified by the concavity exhibited in figure 2, extending along the plane of the hinge area. See page 2, lines 8-52 of Cover ('183)), the transverse curvature biasing the flexible flap to assist in closing the valve in the absence of an opening pressure differential across the flexible flap, under any orientation of the valve (as disclosed at page 2, lines 8-52 of Cover ('183)), wherein the flexible flap has a maximum transverse curvature at the location where the flexible flap is mounted to the valve seat" as recited.

Regarding claim 66, in Cover ('183), the transverse curvature of the flexible flap decreases in the longitudinal dimension toward a free end of the flexible flap" from the maximum at the hinge area given that the surface 17 is concave. At locations approaching the rim of the concavity the curvature will decrease to eventually meet with the plate rim.

Regarding claim 67, in Cover ('183), "the transverse curvature is imparted to the flexible flap (either one of valves) by virtue of its mounting to the valve seat" as recited.

Regarding claim 69, in Cover ('183), "the exhalation valve is so located on the mask such that during normal head movements of a wearer, the free end of the (lower) flexible flap (of the two) is generally directed downward" as recited.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 41, 43-46, 64, 66-69, 91, 114, 115 and 117-119 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 41 recites the limitation "the orifice" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 64 recites the limitation "the orifice" in 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 91 recites the limitation "the profiled block" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 114, 115, and 117-119, each claim is directly or ultimately dependent on canceled claim 113.

The remaining claims are included due to dependency.

Claims 16, 17, 19-25, 89, 90 and 92-94 are allowed.

Claim 91 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN RIVELL whose telephone number is (571)272-4918. The examiner can normally be reached on Mon.-Fri. from 6:00am-2:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3753

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/John Rivell/  
John Rivell  
Primary Examiner  
Art Unit 3753**